

# Clinical Trial Protocol

## Iranian Registry of Clinical Trials

06 Jul 2026

### Evaluation of the effect of acupressure on anxiety of patients undergoing coronary angiography

#### Protocol summary

##### Study aim

Determining the effect of acupressure on anxiety in patients undergoing coronary angiography referred to Farshchian heart hospital in Hamadan in 1399.

##### Design

A randomized clinical trial with a control group, with three parallel groups

##### Settings and conduct

The present study will be conducted as a three-group clinical trial with the participation of 105 patients who are candidates for coronary angiography in the city of Hamadan. Participants will be randomly assigned to three groups. In group (A), intervention on GV20 points and in group (B), intervention on BL62 point will be applied for 10 minutes. The accuracy of the pressure applied by the researcher's finger to the desired point will be confirmed when the patient feels warm, heavy or numb at that point. No intervention will be performed in control group (C). Acupressure for all patients will be performed by a researcher. In this study, the one-blind method will be used. Anxiety levels will be measured by the Spielberger Situational Anxiety questionnaire, which is completed by the patient.

##### Participants/Inclusion and exclusion criteria

Inclusion criteria: Having a desire to participate in the study, age 35 to 60 years, Stability of vital signs including blood pressure, pulse, respiration and temperature, having an anxiety score higher than 20 based on the questionnaire. Exclusion criteria: Having any mental disorder being treated, Changes in the patient treatment process, decreased level of patient consciousness during the study

##### Intervention groups

Intervention in group (A) on GV20 points (in the middle of the anterior hairline or midline of the line connecting the apex of both ears) and in group (B), intervention on BL62 points (below the lower edge of the external ankle Foot) will be performed for 10 minutes, one hour before the angiography. No special action will be taken in the

control group.

##### Main outcome variables

Anxiety

#### General information

##### Reason for update

##### Acronym

##### IRCT registration information

IRCT registration number: **IRCT20160110025929N33**

Registration date: **2020-09-21, 1399/06/31**

Registration timing: **prospective**

Last update: **2020-09-21, 1399/06/31**

Update count: **0**

##### Registration date

2020-09-21, 1399/06/31

##### Registrant information

##### Name

Mehdi Molavi Vardanjani

##### Name of organization / entity

##### Country

Iran (Islamic Republic of)

##### Phone

+98 81 3422 5056

##### Email address

m.molavi@umsha.ac.ir

##### Recruitment status

**Recruitment complete**

##### Funding source

##### Expected recruitment start date

2020-09-22, 1399/07/01

##### Expected recruitment end date

2021-03-19, 1399/12/29

##### Actual recruitment start date

empty

##### Actual recruitment end date

empty

**Trial completion date**  
empty

**Scientific title**  
Evaluation of the effect of acupressure on anxiety of patients undergoing coronary angiography

**Public title**  
The effect of acupressure on anxiety of patients undergoing coronary angiography

**Purpose**  
Health service research

**Inclusion/Exclusion criteria**  
**Inclusion criteria:**  
Having a desire to participate in the study Age 35 to 60 years Stability of vital signs including blood pressure, pulse, respiration and temperature Having an anxiety score higher than 20 based on the questionnaire  
**Exclusion criteria:**  
Make any changes in the patient treatment process Having any mental disorder being treated Decreased level of patient consciousness during the study

**Age**  
From **35 years** old to **60 years** old

**Gender**  
Both

**Phase**  
N/A

**Groups that have been masked**  
*No information*

**Sample size**  
Target sample size: **105**

**Randomization (investigator's opinion)**  
Randomized

**Randomization description**  
Simple random allocation will be done using a random number table. Patients will be randomly divided into three groups of intervention(A,B) and control (C).

**Blinding (investigator's opinion)**  
Not blinded

**Blinding description**

**Placebo**  
Not used

**Assignment**  
Parallel

**Other design features**

## Secondary Ids

empty

## Ethics committees

### 1

#### Ethics committee

##### Name of ethics committee

Ethics Committee of Hamadan University of Medical Sciences

##### Street address

Shahid Fahmideh St., Hamadan University of Medical

Sciences, Hamadan

**City**  
Hamadan

**Province**  
Hamadan

**Postal code**  
38698-65178

**Approval date**  
2020-05-23, 1399/03/03

**Ethics committee reference number**  
IR.UMSHA.REC.1399.222

## Health conditions studied

### 1

#### Description of health condition studied

Coronary atherosclerosis

#### ICD-10 code

I25.1

#### ICD-10 code description

Atherosclerotic heart disease of native coronary artery

## Primary outcomes

### 1

#### Description

Anxiety

#### Timepoint

Before and one hour after the intervention

#### Method of measurement

Spielberger Questionnaire

## Secondary outcomes

empty

## Intervention groups

### 1

#### Description

Intervention group A: The intervention will be applied to the GV20 points (directly in the middle of the anterior hairline or the midline of the line connecting the apex of both ears) for 10 minutes, one hour before the angiography.

#### Category

N/A

### 2

#### Description

Intervention group B: The intervention will be applied to the BL62 point (below the lower edge of the outer ankle) for 10 minutes, one hour before the angiography.

#### Category

N/A

### 3

#### Description

Control group: No special action will be taken in the control group.

#### Category

N/A

### Recruitment centers

#### 1

##### Recruitment center

###### Name of recruitment center

Farshchian hospital

###### Full name of responsible person

Babak Manafi

###### Street address

Shahid Fahmideh St., Hamadan University of Medical Sciences, Hamadan

###### City

Hamadan

###### Province

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###### Postal code

38698-65178

###### Phone

+98 81 3838 0535

###### Email

B.manafi@umsha.ac.ir

### Sponsors / Funding sources

#### 1

##### Sponsor

###### Name of organization / entity

Hamedan University of Medical Sciences

###### Full name of responsible person

Saeed Bashirian

###### Street address

Shahid Fahmideh St., Hamadan University of Medical Sciences, Hamadan

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s\_bashirian@umsha.ac.ir

##### Grant name

##### Grant code / Reference number

##### Is the source of funding the same sponsor organization/entity?

No

##### Title of funding source

Deputy of research and technology

##### Proportion provided by this source

100

##### Public or private sector

Public

##### Domestic or foreign origin

Domestic

##### Category of foreign source of funding

empty

##### Country of origin

##### Type of organization providing the funding

Academic

### Person responsible for general inquiries

##### Contact

###### Name of organization / entity

Hamedan University of Medical Sciences

###### Full name of responsible person

Reza Borzou

###### Position

Associate Professor

###### Latest degree

Ph.D.

###### Other areas of specialty/work

Nursery

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borzou@umsha.ac.ir

### Person responsible for scientific inquiries

##### Contact

###### Name of organization / entity

Hamedan University of Medical Sciences

###### Full name of responsible person

Reza Borzou

###### Position

Associate Professor

###### Latest degree

Ph.D.

###### Other areas of specialty/work

Nursery

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**Email**

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**Person responsible for updating data****Contact****Name of organization / entity**

Hamedan University of Medical Sciences

**Full name of responsible person**

Zahra Mirzaei

**Position**

Student

**Latest degree**

Bachelor

**Other areas of specialty/work**

Nursery

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**Province**

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**Email**

Atena.mirzaie1851@gmail.com

**Sharing plan****Deidentified Individual Participant Data Set (IPD)**

Undecided - It is not yet known if there will be a plan to make this available

**Study Protocol**

Undecided - It is not yet known if there will be a plan to make this available

**Statistical Analysis Plan**

Undecided - It is not yet known if there will be a plan to make this available

**Informed Consent Form**

Undecided - It is not yet known if there will be a plan to make this available

**Clinical Study Report**

Undecided - It is not yet known if there will be a plan to make this available

**Analytic Code**

Undecided - It is not yet known if there will be a plan to make this available

**Data Dictionary**

Undecided - It is not yet known if there will be a plan to make this available